

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ORDER NO. 88-53
WASTE DISCHARGE REQUIREMENTS
FOR THE
MISSION AVENUE SANITARY LANDFILL
IN THE CITY OF OCEANSIDE
SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. On July 19, 1971, this Regional Board adopted Order No. 71-42, Waste Discharge Requirements For the City of Oceanside Sanitary Landfill. Order No. 71-42 established requirements for the operation of a landfill for the disposal of nonhazardous solid waste and digested sewage sludge. The landfill regulated by Order No. 71-42 has come to be, and is hereinafter known as, the Mission Avenue Landfill.
2. On January 30, 1978, this Regional Board issued Cleanup and Abatement Order No. 78-9. Order 78-9 was issued due to the discharge of sludge and leachate from the landfill to the canyon bottom and directly to the San Luis Rey River.
3. On October 18, 1984, the State Water Resources Control Board (State Board) adopted a new version of California Administrative Code (now known as California Code of Regulations) Title 23, Chapter 3, Subchapter 15, superseding the version of Subchapter 15 adopted in 1972. Subchapter 15 establishes waste and site classification criteria and waste management requirements for waste treatment, storage and disposal in landfills, surface impoundments, waste piles and land treatment facilities, closure and post closure maintenance requirements for such facilities as well as standards for discharges of mining wastes and discharges of animal wastes at confined animal facilities.

Subchapter 15 is to be implemented by issuance of waste discharge requirements. In order for waste discharge requirements to be issued which fully implement Subchapter 15 with respect to a specific landfill site, it is necessary for the landfill owner/operator to submit certain information called for in Subchapter 15, and for Regional Board staff to review and analyze that information.

4. The Mission Avenue Landfill site is owned by the Oceanside Unified School District. In accordance with City of Oceanside City Council Resolution No. 71-133, the City of Oceanside Public Services Department, which operated the landfill during its active life, continues to be responsible for maintenance of the site.
5. The 14-acre Mission Avenue Landfill is located north of Mission Avenue and south of the San Luis Rey River in the City of Oceanside. The site is bordered on the east and south by Jefferson High School, Clair Bergener School, and Mission Elementary School, and on the west by the Sterling

Homes property. The site is located in the Mission Hydrographic Subarea (3.11) of the Bonsall Hydrographic Subunit of the San Luis Rey Hydrographic Unit, in the northwest 1/4 of Section 23, and southeast 1/4 of Section 24, T11S, R5W, SBB&M. The site location is shown on Attachment A to this Order.

6. By letter dated April 18, 1985, Regional Board staff requested the City of Oceanside to submit a technical report by May 28, 1985, describing measures necessary to bring the site into compliance with monitoring requirements of Article 5, and closure and post-closure maintenance requirements in accordance with the revised Subchapter 15 regulations.
7. In response to Regional Board staff's request, Mr. Glen Prentice, Director, Public Services Department, City of Oceanside submitted a technical report entitled "Ground Water Monitoring Plan for the Mission Avenue Landfill", dated December 4, 1985, and additional information was submitted March 13, 1986, and March 10, 1987. Mr. Prentice, submitted an incomplete Report of Waste Discharge, for closure and post-closure maintenance requirements for the Mission Avenue Landfill, dated August 4, 1987. After the receipt of additional information received on January 12, January 21, February 12, and February 19, 1988, Regional Board staff determined the Report of Waste Discharge was complete on March 11, 1988 and that all necessary information had been submitted to issue waste discharge requirements in order to fully implement Subchapter 15 for the closure of the Mission Avenue Landfill. The Report of Waste Discharge consists of the following:
 - a. Form 200, Application for Facility Permit/Waste Discharge for closure of the Mission Avenue Landfill, dated July 30, 1987;
 - b. Technical report entitled "Revised Closure and Post Closure Plan, Mission Avenue Landfill Site, Oceanside, California", dated December 1987;
 - c. Technical report entitled "Revised Ground Water Monitoring Plan Mission Avenue Landfill Site, Oceanside, California", dated January 1988; and
 - d. Accompanying maps entitled "Conceptual Closure Plan, Mission Avenue Landfill Site, Oceanside, California", dated November 14, 1987.

The technical reports were prepared by SCS Engineers, Long Beach, California.

8. The Report of Waste Discharge indicated that the landfill site is within a steep walled canyon which is a tributary to the San Luis Rey River, which lies approximately 2,000 feet to the north.
9. The Report of Waste Discharge indicated total relief of the site is approximately 130 feet. Elevation ranges from approximately 190 feet mean sea level (MSL) at the landfill surface to 60 feet MSL at the toe of the landfill in the canyon bottom.

10. The Report of Waste Discharge indicated that under a demonstration grant from the National Institute of Health, a feasibility study of co-disposal of secondary digested sewage sludge with solid waste was conducted at the landfill. The study concluded that there were no negative environmental impacts as a result of co-disposal of sludge-solid wastes. Consequently, disposal of sewage sludge continued at the site.
11. The Report of Waste Discharge indicated that, during the active period of operation, the Mission Avenue Landfill, received approximately 790,000 cubic yards of nonhazardous solid waste and 100,000 cubic yards of digested sewage sludge. The solids content of the sewage sludge increased from the initial 3-6 percent solids to as much as 18-22 percent, as a result of improvements in dewatering equipment. Disposal of refuse at the landfill ceased in 1979.
12. The Report of Waste Discharge indicated that in 1974, landfilling extended into an approximately 1.5 acre portion of the adjacent Sterling Homes property. This area is now known as the landfill extension (LFE). It is estimated that approximately 40,000 cubic yards of refuse was disposed of into the LFE. The City of Oceanside has since taken title to the LFE.
13. The Report of Waste Discharge indicated that refuse is estimated to be 80 feet thick near the site perimeters as much as 100 feet thick in the center of the site.
14. This Order, which supersedes Order No. 71-42, establishes waste discharge requirements for closure and post-closure maintenance of the Mission Avenue Landfill.
15. The Report of Waste Discharge indicated that the geology of the area consists of consolidated and semi-consolidated sedimentary rocks of Tertiary and Quaternary age. They include the following:
 - a. The San Onofre Breccia consists of a brecciated schist with interbeds of sandstones, siltstones, and shales, deposited in an alluvial fan environment. Locally the breccia strikes N20W and dips 20 degrees to the northwest. Historically there has been very little ground water production from the San Onofre Breccia. However, zones of higher permeability which are capable of transmitting small quantities of water may exist.
 - b. The terrace deposits consist of unconsolidated and consolidated marine sands, silts, clays, and gravels that overly the San Onofre Breccia. They are estimated to be 16 to 29 feet thick.
 - c. The stream alluvial deposits consists of sands, silts, and clays. These deposits are found in the canyon bottom, and underlie a portion of the landfill material. The alluvium is contiguous with alluvium of the San Luis Rey River. At the base of the landfill these deposits are estimated to be 20 to 25 feet thick.

16. The Report of Waste Discharge indicated that little information exists on active faulting in the area. However, several faults occur within one mile of the site. These faults include; three northwest trending faults that are approximately, 1/2 to 1 mile southwest, 1 mile northwest, and 1 mile southeast of the site; and a west-northwest trending fault approximately 1/4 mile north-northwest of the site.
17. Jim Parsons, State Board staff, made the following observations of conditions of the landfill by memo, dated March 21, 1978:
 - "a. The disposal of waste was causing a pollution of waters flowing to the San Luis Rey River. Bad smelling, dark leachate was flowing from several points in the landfill and mixing with the storm runoff flowing down the gully to the river;
 - b. Waste materials were noted outside of the designated disposal area. Paper, tires, tin cans, and other debris were visible at least 2,000 feet beyond the base of the landfill;
 - c. The disposal site was not adequately protected from washout or erosion of wastes. Erosion of waste by water flowing over the known faces of the fill was observed;
 - d. Surface drainage from tributary areas and internal site drainage was contacting and percolating through waste discharged at the site. In addition to the water flowing over the uncovered face of the fill, there were substantial "birdbaths" (ponds in undrained low spots on top of the landfill). The cover material below these birdbaths was not adequate to prevent percolation of the water through the cover material and through the waste;
 - e. There is no downgradient liquid control barrier to prevent leachate and liquid waste from entering surface waters;
 - f. There are no runoff diversion channels around the lower portion of the site; and
 - g. The exterior surfaces of the disposal site have not been graded to promote lateral runoff of precipitation and preventing ponding."
18. The Report of Waste Discharge indicated that due to the migration of landfill gas at hazardous concentrations, the City of Oceanside installed a landfill gas control system, in 1982. The existing system consists of 41 gas extraction wells.
19. The Report of Waste Discharge indicated that approximately 10 gallons per day of liquid condensate, generated in the landfill gas control and recovery system, is discharged back into the landfill at each of the 14 moisture traps.

20. The Report of Waste Discharge indicated that a significant amount of settlement of the landfill material has occurred since cessation of refuse disposal, particularly in the central portion of the site where refuse depth is greatest.
21. The Report of Waste Discharge indicated that rainfall in the area averages 10 to 12 inches per year and primarily occurs from October through April.
22. The Report of Waste Discharge indicated that due to the landfill elevation no flood control zones were established for the tributary stream.
23. The Report of Waste Discharge indicated that there are no water wells within a one mile radius of the site.
24. The Report of Waste Discharge indicated that surface runoff from the south, and west of the landfill is directed across the landfill, through reinforced concrete pipe buried below the landfill surface, and discharges into the canyon at the base of the landfill. These drain pipes periodically break due to differential settlement of the landfill material. Surface runoff from the east side of the landfill is diverted by a drainage ditch. This drainage ditch overflows onto the landfill during periods of high rainfall.
25. The Report of Waste Discharge indicated that ground water flow was assumed to generally parallel the surface flow pattern, i.e. northerly towards the San Luis Rey River.
26. The Report of Waste Discharge indicated that seeps and moist areas have been identified in several locations at the base of the landfill.
27. The Report of Waste Discharge indicated that after closure, the land is planned to remain as open space. The landfill surface will be allowed to vegetate naturally, while the slopeface will be hydromulched with a native vegetation seed mix. No irrigation is planned for the site after closure.
28. The Report of Waste Discharge indicated that the existing landfill cover does not meet Subchapter 15 prescriptive standards for minimum cover thickness and permeability. Present cover thickness varies from approximately 0.5 to 1.5 feet along the western portion of the landfill and from 3 to 5 feet on the remainder of the site.
29. The closure and post-closure plan contained in the Report of Waste Discharge proposed to achieve closure of the site by implementing the following:
 - a. Improve surface drainage of the landfill by replacing all existing subsurface storm drains in the landfill with surface drainage ditches constructed of half-round corrugated metal pipe (CMP); install a new 24-inch diameter reinforced concrete subsurface drainage pipe; and

enlarge the existing surface drainage ditch located along the east side of the landfill. Landfill surface drainage will empty onto a rip-rap velocity dissipator and then into a detention basin before being discharged into the canyon at the base of the landfill. The proposed surface drains on the landfill site are designed to drain the site based on 3 percent surface slope and 100-year rainfall intensity.

- b. Apply additional cover material to obtain a minimum 4-foot cover thickness over the entire landfill surface, including the front slopeface. Cover will include a 1-foot layer of soil with permeability of 1×10^{-6} cm/sec. or less in the westerly and southwesterly portion of the site and up to 5-feet of soil cover over the central portion of the landfill to support vegetation.
 - c. Raise the existing grade of the westerly and central portions of the site to obtain a minimum 3 percent surface slope. An estimated 75,000 cubic yards of additional cover material will be required to bring the site to final grade.
 - d. Expand the existing landfill gas control system into the landfill extension area on the western perimeter of the landfill adjacent to the Sterling Homes property.
30. The Report of Waste Discharge indicated that if sufficient quantity of soil to provide a 1-foot low permeable clay layer is not available, local soil material will be mixed with bentonite clay to achieve the 1-foot layer. Laboratory testing will be used to determine the soil-bentonite mixture. To ensure that a bentonite-soil mixture complies with Subchapter 15 cover requirements, field measurements to determine permeability and relative compaction will be conducted.
31. The Report of Waste Discharge indicated that the estimated cost of closure of the landfill is approximately \$560,000. These costs are primarily for earthwork, drainage structures, landfill gas control and monitoring system, and engineering and contract administration. The annual cost of post-closure maintenance is estimated to be approximately \$170,000. These costs are primarily for maintenance of the landfill gas control and extraction system and for regrading portions of the landfill cover.
32. The Report of Waste Discharge indicated that as part of an initial ground water monitoring program, three monitoring wells were installed at the site. They include:
- a. MW-1 is a shallow well and is completed in the recent stream alluvial deposits in the canyon at the base of the landfill. Ground water has not been encountered.
 - b. MW-2 is adjacent to MW-1 and is screened in the San Onofre Breccia at the base of the landfill. Ground water was measured at approximately 27.6 feet below the canyon surface, in February 1987.

- c. MW-3 is a shallow monitoring well that is located on upgradient of the landfill and completed in the terrace deposits. Ground water has not been encountered.
33. The Report of Waste Discharge indicated water quality analysis of ground water from MW-2, taken February 1987, indicate elevated levels of coliform bacteria and TDS, however, that available evidence is inconclusive as to the presence of leachate in the ground water and its migration to the San Luis Rey River.
34. By letter dated February 9, 1988, Regional Board staff indicated that enough of the technical issues concerning closure of the site had been addressed to issue waste discharge requirements for closure and post-closure maintenance of the site. The letter also indicated that additional testing and reporting would be necessary to ensure that closure proceeded in accordance with Subchapter 15 requirements. These testing and reporting requirements include:
- a. Sampling and analysis of cover material to determine soil textures and compaction in accordance with Subchapter 15, Section 2541(c) requirements;
 - b. Testing of cover materials to determine thickness and physical characteristics of final cover in accordance with Subchapter 15, Section 2581(a) and 2597(a) (9) requirements;
 - c. Field testing of cover materials to determine permeability in accordance with Subchapter 15, Section 2541(c) requirements;
 - d. Additional ground water monitoring wells to provide background water quality monitoring and provide site specific geologic data;
 - e. Unsaturated zone monitoring in accordance with Subchapter 15, Section 2550(a) 2559 criteria;
 - f. Installation of at least two permanent monuments in accordance with Subchapter 15, Section 2581(d) requirements; and
 - g. Establishment of an irrevocable closure fund or other means to ensure closure and post-closure maintenance of the landfill in accordance with Subchapter 15, Section 2581(f) requirements;
35. The Mission Avenue Landfill is also subject to the requirements of Water Code Section 13273, which was added by the Calderon Bill (AB 3525), adopted in 1984. Section 13273 required the State Board to develop a ranked list of all known solid waste disposal sites throughout the state on the basis of the threat which they may pose to water quality. Water Code Section 13273 requires the operator of each solid waste disposal site on the ranked list to conduct and submit to the appropriate regional board the results of a

solid waste water quality assessment test (SWAT) to determine if the site is leaking hazardous waste. The State Board approved a ranked list in December 1985 and revised lists in September 1986 and December 1987. The Mission Avenue Landfill was placed in rank 1. A final report summarizing the results of the SWAT were required to be submitted by July 1, 1987. The City of Oceanside submitted a SWAT proposal, dated June 14, 1987. The SWAT proposal has been reviewed by Regional Board staff, and the SWAT investigation is in progress.

36. The Comprehensive Water Quality Control Plan Report, San Diego Basin (9) (Basin Plan), adopted by this Regional Board on March 17, 1975; approved by the State Board on March 20, 1975; and updated by this Regional Board on February 27, 1978; March 23, 1981; January 24 and October 3, 1983; August 27, 1984; December 16, 1985; and March 25, 1986. The updates were subsequently approved by the State Board.
37. The Basin Plan established the following beneficial uses for the waters of the Mission Hydrographic Subarea:
 - a. Surface waters
 1. Agricultural supply
 2. Industrial service supply
 3. Water contact recreation
 4. Non contact water recreation
 5. Warm fresh-water habitat
 6. Wildlife habitat
 7. Preservation of rare and endangered species
 - b. Ground water
 1. Municipal and domestic supply
 2. Agricultural supply
 3. Industrial service supply
 4. Groundwater recharge
38. The Basin Plan established the following ground water objectives which apply to all groundwaters of the basin:
 - a. Tastes and Odors

Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

b. Bacteria

In groundwaters used for domestic or municipal supply the median concentration of coliform organisms over any seven-day period shall be less than 2.2/100 milliliters.

c. Chemical Constituents

Groundwaters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 17, Chapter 5, Subchapter 1, Group 1, Article 4, Section 7019, Tables 2, 3, and 4. To the extent of any conflict between these limits and those specified in Table 4-7, the more stringent shall apply at all times.

Groundwaters designated for use as agricultural supply shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

d. Radioactivity

Groundwaters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents or radionuclides in excess of the limits specified in California Code of Regulations, Title 17, Chapter 5, Subchapter 1, Group 1, Article 4, Section 7019, Table 5.

39. The Basin Plan established the following water quality objectives for water of the Mission Hydrographic Subarea:

Constituent	Surface Water		Ground Water ¹	
	Concentration not to be exceeded more than 10 percent of the time			
Total Dissolved Solids	500	mg/L	1500 ^{2,3}	mg/L
Chloride	250	mg/L	500 ^{2,3}	mg/L
Percent Sodium	60	%	60	%
Sulfate	250	mg/L	500 ^{2,3}	mg/L
Nitrate (as NO ₃)	- - -		45 ^{2,3}	mg/L
Nitrogen & Phosphorus	*		- - -	
Iron	0.3	mg/L	0.85 ^{2,3}	mg/L
Manganese	0.05	mg/L	0.15 ^{2,3}	mg/L
Methylene Blue Active Substances	0.5	mg/L	0.5 ³	mg/L
Boron	0.5	mg/L	0.5 ^{2,3}	mg/L
Odor	None		None	
Turbidity	20	NTU	5	NTU
Color	20	Units	15 ³	Units
Fluoride	1.0	mg/L	1.0 ³	mg/L

- 1 The water quality objectives do not apply westerly of the easterly boundary of Interstate Highway 5. The objectives for the remainder of the hydrographic subarea are as shown.
- 2 The recommended plan would allow for measurable degradation of groundwater in this basin to permit continued agricultural land use. Point sources, however, would be controlled to achieve effluent quality corresponding to the tabulated numerical values. In future years demineralization may be used to treat groundwater to the desired quality prior to use.
- 3 A portion of the Upper Mission Basin is being considered as an underground potable water storage reservoir for treated imported water. The area is located north of Highway 76 on the boundary of hydrographic subareas 3.11 and 3.12. If this program is adopted, local objectives approaching the quality of the imported water would be set and rigorously pursued.

- * Concentrations of nitrogen and phosphorus, by themselves or in combinations with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/L in any stream at the point where it enters any standing body of water, nor 0.025 mg/L in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/L total P. These values are not to be exceeded more than 10 percent of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

Note: mg/L = milligrams per liter
 NTU = Nephelometric Turbidity Units

40. The Basin Plan contains the following prohibitions which are applicable to the site:
 - a. "The dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste directly into inland waters or watercourses or adjacent to watercourses in any manner which may permit its being washed into the watercourse is prohibited."
 - b. "Dumping or deposition of oil, garbage, trash or other solid municipal, industrial or agricultural waste into natural or excavated sites below historic water levels or deposition of soluble industrial wastes at any site is prohibited, unless such site has been specifically approved by the Regional Board for that purpose."
 - c. "Land grading and similar operations causing soil disturbance which do not contain provisions to minimize soil erosion and limit suspended matter in are runoff are prohibited."
41. The Regional Board, in establishing the requirements contained herein, considered factors including, but not limited to the following:
 - a. Past, present, and probable future beneficial uses of water.
 - b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
 - c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
 - d. Economic considerations.
 - e. The need for developing housing within the region.
 - f. Beneficial uses to be protected and water quality objectives reasonably required for that purpose.
 - g. Other waste discharges.
 - h. The need to prevent nuisance.
42. This facility is an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with Title 14, California Code of Regulations, Chapter 3, Article 19, Section 15301.
43. The Regional Board has considered all water resource related environmental factors associated with the Mission Avenue Landfill.

44. The Regional Board has notified the discharger and all known interested parties of the intent to issue waste discharge requirements for closure and post-closure maintenance of the Mission Avenue Landfill.
45. The Regional Board in a public meeting heard and considered all comments pertaining to the Mission Avenue Landfill.

IT IS HEREBY ORDERED, That the City of Oceanside and the Oceanside Unified School District (hereinafter together referred to as the discharger), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following at the Mission Avenue Landfill:

A. PROHIBITIONS

1. Discharges of wastes to lands which have not been specifically described to the Regional Board and for which valid waste discharge requirements are not in force are prohibited.
2. The discharge of waste shall not:
 - a. Cause the occurrence of coliform or pathogenic organisms in waters pumped from the basin;
 - b. Cause the occurrence of objectionable tastes and odors in water pumped from the basin;
 - c. Cause waters pumped from the basin to foam;
 - d. Cause the presence of toxic materials in waters pumped from the basin;
 - e. Cause the pH of waters pumped from the basin to fall below 6.0 or rise above 9.0;
 - f. Cause this Regional Board's objectives for the ground or surface waters of the Mission Hydrographic Subarea, as established in the Basin Plan, to be exceeded.
3. Odors, vectors, and other nuisances of waste origin beyond the limits of the landfill site are prohibited.
4. The discharge of waste in a manner other than as described in the findings of this Order or in the Report of Waste Discharge is prohibited unless the discharger obtains revised waste discharge requirements that provide for the proposed change.

5. The discharge of waste from the Mission Avenue Landfill to surface drainage courses or to usable ground water is prohibited.
6. Basin Plan prohibitions shall not be violated.

B. CLOSURE SPECIFICATIONS

1. The discharger shall implement the approved closure plan described in the findings of this Order. Any proposed amendments to the closure plan must be approved in writing by the Executive Officer.
2. The migration of methane gas from the disposal site shall be controlled as necessary to prevent creation of a nuisance.
3. The disposal site shall be adequately protected from any washout, erosion of wastes or covering material. Adequate protection is defined as protection from at least a 100-year flood.
4. The disposal site shall receive a final cover consisting, at the minimum of a two-foot thick foundation layer, overlain by a one-foot thick clay liner, and finally by a one-foot thick vegetative soil layer, to obtain a final cover in accordance with requirements of Subchapter 15, Section 2581.
5. The disposal site shall be graded and maintained to prevent ponding and to provide slopes necessary to carry off surface drainage. Areas subject to erosion by water and/or wind shall be provided with a lining, planted with vegetation, or otherwise designed and constructed to prevent such erosion.
6. All necessary facilities shall be provided to ensure that landfill gases from wastes and ponded water containing leachate or in contact with refuse is not discharged to surface waters or to usable ground waters.
7. Closure of the landfill site shall be under the direct supervision of a California registered civil engineer or a certified engineering geologist.
8. The landfill site shall be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.
9. Vegetation used at the disposal site shall be selected to require minimum irrigation and maintenance, and shall not impair the integrity of containment structures including the final cover.
10. The discharger shall establish an irrevocable closure fund or provide other means to ensure post-closure maintenance of this waste management facility in accordance with the closure and post-closure maintenance plan contained in the Report of Waste Discharge.

11. The disposal site shall be graded to at least three-percent grade and be maintained to prevent ponding.
12. Areas of the disposal site with slopes greater than ten percent, surface drainage courses, and areas subject to erosion by water and wind shall be protected or designed and constructed to prevent such erosion.
13. Throughout the post-closure maintenance period, and for as long as the wastes contained in the disposal site pose a threat to water quality the discharger shall:
 - a. Maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement or other adverse factors;
 - b. Maintain monitoring systems and monitor the ground water, surface water, and the unsaturated zone in accordance with applicable requirements of Article 5 of Subchapter 15;
 - c. Prevent erosion and related damage of the final cover due to drainage; and
 - d. Protect and maintain surveyed monuments.

C. PROVISIONS

1. Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code.
2. The discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order.
3. In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Order.
4. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

5. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate laboratory and process controls including appropriate quality assurance procedures.
6. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order;
 - b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts; or
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the discharger for the modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
7. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liability under federal, state, or local laws, nor create a vested right for the discharger to continue the regulated activity.
8. The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law to:
 - a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

9. A copy of this Order shall be maintained at this waste management facility and shall be available to operating personnel at all times.
10. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
11. Alternatives and exceptions to and exemptions and waivers from requirements of Subchapter 15 shall be subject to the approval of the Executive Officer and shall be authorized only as provided for by Subchapter 15. Implemented alternatives to Subchapter 15 requirements shall meet the conditions for approval of such alternatives established in Subchapter 15 throughout the post-closure period.
12. This Order becomes effective on the date of adoption by the Regional Board. This Order supersedes Order No. 71-42. Order No. 71-42 is hereby rescinded.
13. Closure of this waste management facility may be subject to regulations of the California Waste Management Board.

D. REPORTING REQUIREMENTS

1. The discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:
 - a. Change in the closure plan from that described in the findings of this Order.
 - b. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.
2. The discharger shall furnish to the Executive Officer of this Regional Board, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Executive Officer upon request, copies of records required to be kept by this Order.
3. The discharger must notify the Executive Officer, in writing, at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on.

4. Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information.
5. The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, or prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
6. The discharger shall submit to the Executive Officer a technical report in accordance with the following schedule:

TASK	COMPLIANCE DATE	REPORT DATE
a. A discussion of sampling and analysis methodology to determine soil textures and compaction of final cover in accordance with Subchapter 15, Section 2541(c) requirements;	10/31/88	11/14/88
b. A discussion of testing methodology to determine thickness and physical characteristics of final cover material in accordance with Subchapter 15, Section 2581(a) and 2597(a) (9) requirements;	10/31/88	11/14/88
c. A discussion of testing methodology to determine field permeability of final cover in accordance with Subchapter 15, Section 2541(c) requirements;	10/31/88	11/14/88

7. The discharger shall submit to the Executive Officer, within two months of adoption of this Order, a revised ground water and vadose zone water quality monitoring program, in accordance with Subchapter 15, Article 5 requirements, for the Mission Avenue Sanitary Landfill. Article 5 establishes requirements for implementation of a detection monitoring program and, if necessary, verification and corrective action programs. The monitoring program must include the following:
 - a. A demonstration that the monitoring program provides representative samples of groundwater, surface water, and unsaturated zone water in all significant potential pollutant escape routes;
 - b. Rationale, including supporting data for the location, depth, and design of each sample point of the monitoring program;
 - c. Preparation of geologic cross sections. Cross sections should indicate geologic structures and stratigraphic relationships, correlate well logs and hydrologic conditions on and beneath the site, and associate these features with the disposal site construction features and monitoring well locations;
 - d. Preparation of ground water surface and hydraulic gradient maps. Relevant well data used to construct these maps should be included;
 - e. Specifications of well design, placement, rationale for their spatial distribution, screening, procedures for well development, as well as a detailed sampling and analysis plan;
 - f. As-built monitoring well construction details and boring logs; and
 - g. Specific field activity well logs filled out by field personnel during each sampling event. The information shall include (but not be limited to), the name(s) and qualifications of the sampling personnel, time sampling at the well is initiated, weather conditions, presence of an immiscible layer, depth to water, purging procedure, purge pump calibration data, volume of purged water, method of handling purged water, method of measuring the field measured parameters, the results of all field measured parameters, description of sampling procedure (if different from that specified in the ground water and vadose monitoring plan), list of sample bottles and their corresponding parameters, preservatives in sample bottles, sequence of sample collection, time finished, and any observations or problems encountered.
8. The discharger shall implement the monitoring program, identified in reporting requirements No. D. 7 of this Order, upon approval by the Executive Officer.

9. The discharger shall submit a report, within three months of adoption of this Order, that includes the following information:
 - a. Certification, by a California registered civil engineer or certified engineering geologist, certifying the adequacy of each component of the closure and post-closure plan in accordance with closure specification B. 8 of this Order.
 - b. Installation of at least two permanent monuments in accordance with closure specification B. 9 of this Order.
 - c. Demonstration of establishment of an irrevocable closure fund or other means to ensure closure and post-closure maintenance of the landfill in accordance closure specification B. 11 of this Order.
 - d. Completion of testing and analysis of final cover in accordance with reporting requirement D. 6. of this Order.
 - e. Implementation of ground water and unsaturated zone monitoring in accordance with reporting requirement D. 8. of this Order.
10. The discharger shall comply with the attached Monitoring and Reporting Program No. 88-53. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 88-53.
11. The discharger shall conduct such monitoring as may be necessary in order to provide information requested by the Executive Officer.
12. All applications, reports, or information submitted to the Executive Officer of this Regional Board shall be signed and certified as follows:
 - a. The Report of Waste Discharge shall be signed as follows:
 1. For a corporation - by a principal executive officer of at least the level of vice-president.
 2. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 3. For a municipality, state, federal or other public agency - by either a principal executive officer or ranking elected official.
 4. For a military installation - by the base commander or the person with overall responsibility for environmental matters in that branch of the military.

- b. All other reports required by this Order and other information required by the Executive Officer shall be signed by a person designated in paragraph (a) of this provision, or by a duly authorized representative of that person. An individual is a duly authorized representative only if:
 - 1. The authorization is made in writing by a person described in paragraph (a) of this provision;
 - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - 3. The written authorization is submitted to the Executive Officer.
- c. Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
- 13. The discharger shall submit reports required under this Order and other information requested by the Executive Officer, to:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9771 Clairemont Mesa Blvd., Suite B
San Diego, California 92124-1331

E. NOTIFICATIONS

1. These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Section 402 of the Clean Water Act.
2. The California Water Code provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to administrative civil liability of up to 10 dollars per gallon of waste discharged, or, if no discharge occurs, up to 1000 dollars per day of violation. The Superior Court may impose civil liability of up to 10,000 dollars per day of violation or, if a cleanup and abatement order has been issued, up to 15,000 dollars per day of violation.
3. The California Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and may be subject to administrative civil liability of up to 1000 dollars per day of violation.
4. Definitions of terms used in this Order shall be as set forth in Subchapter 15.

I, Ladin H. Delaney, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, August 29, 1988.

Ladin H. Delaney

LADIN H. DELANEY
Executive Officer

